

REMARKS

Claims 1-16 and 18-20 are now pending in the above-captioned application.

OBJECTION TO THE SPECIFICATION

The Examiner objected to some minor typographical errors which have been corrected by the above amendment. Applicant has carefully reviewed the Specification for any additional errors and has taken this opportunity to correct them.

DRAWING OBJECTION

The drawings were objected to due to an error in the Specification, namely that media 193 was not described in conjunction with DVD/CD player 93. Since the Specification has been amended to correct this error, the drawings objection is now moot.

REJECTION UNDER 35 U.S.C. §112, Second Paragraph

Claims 18-19 were rejected under 35 U.S.C. §112, second paragraph due to some minor informalities which have been corrected by the above amendment.

Claims 18-19 were objected to by the Examiner due to a minor antecedent basis error. The above Amendment corrects this error. Applicant has also noted another antecedent basis error in claims 3 and 19, (input device interface) and has taken this opportunity to correct this error.

**REJECTION UNDER 35 U.S.C. §102**

Claims 1-2, 4-5, 7, 13, 16-18, and 20 were rejected under 35 U.S.C. §102(e) as being anticipated by LaJoie et al. Applicant respectfully traverses this rejection.

In order to be complete, an anticipation-type rejection must contain two elements:

1. The reference must qualify as "Prior Art" under one of the sections of 35 U.S.C. §102; and
2. The reference must explicitly teach *ALL* of the features of the claimed invention.

In this instance, LaJoie has a filing date less than a year prior to applicant's Provisional Application filing date. Thus, the reference does not qualify as "Prior Art" under 102(b) and the Examiner has applied the reference under 102(e). Applicant reserves the right to swear behind this reference with a §1.131 affidavit, if applicable, at a later date.

However, in this instance, no such affidavit is required, as the present invention is clearly distinguishable over LaJoie et al. LaJoie discloses a fairly unsophisticated cable or satellite TV box that provides pay-per-view features and allows users to program the box to record TV shows on their VCRs. The portions of LaJoie relied upon in the rejection (Col. 29, lines 17-19) describe a technique for detecting conflicts between **requests to record different television programs**. LaJoie teaches that if a user wishes to record two TV shows that overlap in time, the user will be alerted to this time conflict.

In contrast, in the present invention, a sophisticated set-top consumer appliance is disclosed with a number of features and applications. As known in the art, the term "application" refers to a

program running on a computer. An application is not the TV show as disclosed by LaJoie. LaJoie only discloses conflicts between times of TV shows not between two computer programs conflicting with one another. Thus, LaJoie cannot be relied upon to teach or suggest the concept of applications conflict checking, and the rejection fails.

Independent claims 1 and 4 of the present application include the limitation of using a conflict map to determine in advance if a computer program will conflict with another program ("application") running on the computer, before the program is run. In this manner, the apparatus will be far less likely to "crash" if two conflicting applications are run. In Prior Art systems, conflicts are only detected when they occur (resulting in error messages, and one program being closed, or a system crashing). In the present invention, such conflicts are predicted.

Various TV programs or programs types (broadcast versus satellite) cannot be construed as "applications" as alleged in the Office Action. Even in digital format, such "programs" are nothing more than data (e.g., passive data that are processed), not applications (e.g., active commands and instructions that perform the processing) directing and controlling the processor. A re-run of "I Love Lucy" cannot be construed as a computer program or application. Moreover, such television programs (as opposed to computer programs) do not generate conflicts of resources of the processor. The only "conflict" that can occur with television programs is that two programs can be on at the same time.

Ironically, the term "applications" was explicitly selected when drafting the claims of the present application to avoid any confusion from using the word "programs" which has different meanings when applied to "computer programs" (computer applications) and "television programs" (TV shows). Again, the term "applications" has an ordinary meaning in the computer arts, and the term should be interpreted as such.

The term "applications" has not been used in the art to describe television shows. The Examiner cannot invent a meaning to a term contrary to that used in the art. Claims 1 and 4 have been amended to recite "computer applications" to make this term even clearer. It is submitted that this amendment makes it clear that claims 1 and 4 are not referring to different TV shows broadcast during overlapping times.

Independent claims 7, 16, and 20 refer to application modes of operation. The present invention may also encompass a variation wherein an application (program), when shifted to a different mode of operation (e.g., internet radio versus DVD playback), may create an application conflict. Again, this situation is not a conflict between the playback times of the shows or software, but a conflict (e.g., device conflict, memory conflict, interrupt conflict, etc.) that may occur within the processor. These claims refer to "application modes" as the present invention would encompass an embodiment in which different operational programs may be combined.

In other words, these claims do not require the limitation of two distinct separate programs (applications) creating application conflict. These claims were designed to prevent a would-be infringer from attempting to "design around" the claims of the present application by merely combining two conflicting programs into one application and arguing that a single application is not covered by, e.g., claim 1. Applicant contends that all of the claims would cover such a scenario. However, claims 7, 16, and 20 were presented to explicitly recite that the two conflicting programs may in fact be portions of the same application.

Claims 7, 16, and 20 have been amended to include the limitation of checking for application conflicts. Applicant submits that these claims (as amended) are also distinguishable over LaJoie. Again, the only

"conflict" prediction in LaJoie is that of conflict between competing TV shows, not between device resource requests.

REJECTION UNDER 35 U.S.C. §103

Claims 3 and 19 were rejected under 35 U.S.C. §103 as being unpatentable over LaJoie.

Claim 6 was rejected under 35 U.S.C. §103 as being unpatentable over LaJoie in view of Lee.

Claim 8 was rejected under 35 U.S.C. §103 as being unpatentable over LaJoie in view of Farleigh.

Claims 9, 10, 11, and 12 were rejected under 35 U.S.C. §103 as being unpatentable over LaJoie in view of Klosterman.

Claims 14-15 were rejected under 35 U.S.C. §103 as being unpatentable over LaJoie in view of Sciammarella et al.

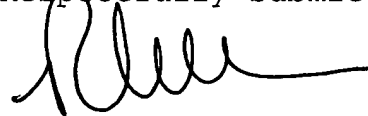
All of these §103 rejections are based upon the LaJoie reference. Since the base rejection under the LaJoie reference fails as set forth above, these rejections of the dependent claims also fail.

CONCLUSION

The minor typographical errors and defects noted by the Examiner have been corrected by the above amendment. The LaJoie reference teaches only determining conflicts between competing TV shows (the TV shows are not competing, but the scheduled times for the TV shows are conflicting or overlapping), not computer applications or application modes, and thus is inapplicable to the present invention. As such, all of claims 1-16 and 18-20 are now in condition for allowance.

An early Notice of Allowance is respectfully requested.

Respectfully submitted,



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1. (AMENDED) A user interface for use with a computer system, said user interface comprising:

selecting means for selecting from a list of predetermined computer applications and outputting a selection signal;

a conflict map containing a list of conflicts between the list of predetermined computer applications; and

conflict checking means, coupled to the selecting means and the conflict map, for receiving the selection signal, determining from the selection signal and the conflict map whether a potential conflict between computer applications could occur, and outputting a display message if a determination is made that a potential conflict could occur between computer applications.

2. The user interface of claim 1, wherein said selecting means comprises a remote control, said user interface further comprises:

an input device interface, for receiving signals from the remote control and converting the signals from the remote control into command signals.

3. (AMENDED) The user interface of claim 2, wherein said remote control comprises an infrared remote control and said input device interface [device] further comprises:

converting means for converting infrared remote control signals to USB signals, said converting means receiving an infrared remote control signal, determining context of use of the infrared remote control signal, and generating a corresponding USB signal to communicate the infrared remote control signal to an intended device.

4. (AMENDED) A method of selecting among a predetermined plurality of computer applications to run on a computer system for presentation on a display screen, comprising the steps of:

selecting from a list of predetermined computer applications and outputting a selection signal,

receiving the selection signal and determining from the selection signal and a conflict map containing a list of conflicts between the list of predetermined computer applications whether a potential conflict could occur, and

outputting a display message if a determination is made that a potential conflict could occur between computer applications.

5. The method of claim 4, wherein said step of outputting a display message further comprises the step of:

prompting a user to select another application if a determination is made that a potential conflict could occur.

6. (AMENDED) The method according to claim 5, further comprising the steps of:

determining whether a television or a computer monitor has been connected to the computer system, and

selecting hardware in a video output device in the computer system to engage alternate video ports to produce [a] an optimal quality output in response to said determining step.

7. (AMENDED) A method for selecting one of at least two predetermined device application modes in a microprocessor controlled television set-top system, comprising the steps of:



selecting a first device application mode from a predetermined menu of device application modes, which menu includes at least two such predetermined device application modes,

determining whether a second of said at least two such predetermined device application modes is active,

determining from a conflict map containing a list of device conflicts between the at least two predetermined device application modes whether a potential conflict could occur, and

initiating television presentation of activities relating to said first device application mode if it is determined a potential device conflict may not occur.

8. The method according to claim 7, further comprising the step of:

halting the second of said at least two such predetermined device application modes upon initiation of the first device application mode.

9. The method according to claim 7, further comprising the step of:

minimizing the second of said at least two such predetermined device application modes upon initiation of the first device application mode.

10. The method according to claim 7, further comprising the step of:

presenting images relating to the second of said at least two such predetermined device application modes in a selected window.

11. The method according to claim 10, wherein said selected window is subordinated in a web browser environment.

12. The method according to claim 11, further comprising the step of:

presenting a control panel for setting operating parameters for the second of said at least two such predetermined device application modes within a selected window.

13. The method according to claim 7, wherein step of selecting comprises the step of selecting with a remote control device.

14. The method according to claim 7, wherein step of selecting comprises the step of selecting through an on-screen emulation of a remote control device.

15. The method according to claim 7, wherein said step of selecting is made by clicking a mouse over an active portion of a screen image of a control panel image.

16. (AMENDED) A set-top system comprising:

a television for producing images according to one or more application modes;

a microprocessor device in communication with said television, said microprocessor device [containing] including circuitry for implementing at least two predetermined application modes; and

a controller for selecting an application mode,

wherein said device is configured to determine activation status of at least a single non-selected application mode when a particular other activation mode is selected,

wherein said controller further comprises a selecting means for selecting from a list of predetermined applications and outputting a selection signal, and

said controller further comprises:

a conflict map containing a list of conflicts between the list of predetermined applications; and

conflict checking means, coupled to the selecting means and the conflict map, for receiving the selection signal, determining from the selection signal and the conflict map whether a potential conflict could occur, and outputting a display message if a determination is made that a potential conflict could occur.

17. CANCELLED

18. (AMENDED) The set-top system of claim [17] 16, wherein said selecting means comprises a remote control, said [user interface] set-top system further [comprises] comprising:

an input device interface, for receiving signals from the remote control and converting the signals from the remote control into command signals.

19. (AMENDED) The set-top system of claim 18, wherein said remote control comprises an infrared remote control and said input device interface [device] further comprises:

converting means for converting infrared remote control signals to USB signals, said converting means receiving an infrared remote control signal, determining context of use of the infrared remote control

signal, and generating a corresponding USB signal to communicate the infrared remote control signal to an intended device.

20. (AMENDED) A computer readable computer program product expressed in a selected computer readable medium, comprising:

a first computer code [mechanism] portion for selecting a first device application mode from a predetermined menu of device application modes, which menu includes at least two such predetermined device application modes;

a second computer code [mechanism] portion for determining whether a second of said at least two such predetermined device application modes is active; and

a third computer code mechanism for determining from a conflict map containing a list of device conflicts between the at least two predetermined device application modes whether a potential conflict could occur, and

a third computer code [mechanism] portion for initiating television presentation of activities relating to said first device application mode if it is determined a potential device conflict may not occur.

step 71 may cause the letters AV to be displayed on the monitor, so the user will identify the current mode of operation. Clicking again will put the remote in control of predetermined PC multimedia functions.

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Figure 2A is a block diagram of a multimedia system 80 having set-top box 81, television 82, speaker or speakers 83, input devices 84, and coaxial cable 96 or other link between television 82 and set-top box 81, capable of alternative audiovisual and multimedia operation subject to mode selection methods. Set-top box 81 may include bus 95 which interconnects RAM 86, ROM 87, modem 88, processor 89, input device interface 90, video card 91, TV tuner 92, DVD/CD player 93 (playing DVD/CD or other medium 193), mass storage 85 (e.g., hard drive) and sound card 94. Video card 91 and TV tuner 92 may be connected by coaxial cable 92 with a video input port of television 82. Sound card 94 may be connected to an audio input port of television 82.

As discussed above, input devices 84 may include remote control devices such as a TV type remote control device and may typically be of the infrared or RF type remote control type. Input device interface 90 may comprise a infrared to USB signal converter. Input device interface 90 may receive remote control signals, and, depending upon context of use (as previously discussed) convert these signals to USB signals for controlling a

particular device. Thus, an infrared signal for the numeral "2" would remain the same regardless of whether such a signal was intended to change a television channel, select DVD track, dial a phone number, or type the number "2" in an e-mail message. Input  
5 device interface 90 (and/or software relating thereto) may receive such a signal, and, cognizant of the context of the signal (i.e., which application is running in the foreground) generate the appropriate USB signal to control or communicate with the appropriate device in the system.

10 Note also that bus 95 may represent one or more physical busses within set-top box 81. Set-top box 81 may include, for example, a universal serial bus (USB) for communicating between peripheral devices. Other system buses (e.g., P-bus, ISA bus, or  
15 the like) may interface with the USB and processor 89 and other system resources (e.g., RAM 86 and ROM 87). Such a bus structure is known in the computer art and may be applied here without departing from the spirit and scope of the present invention.

20 One or more input devices 84, including but not limited to, a keyboard, mouse, or remote control input device, may be coupled hard-wired or wireless signal communication with input device interface 90. Modem 88 may connect set-top box 81 to the Internet and World Wide Web 97.

Processor 89 may comprise, for example, a Pentium™ class processor manufactured by Intel Corporation. Construction of such a Pentium™ class PC architecture is known to those of ordinary skill in the art. In order to reduce cost for the consumer market, however, many "legacy" features and connectors of a traditional PC may not be implemented in set-top box 81 of Figure 2A. Moreover, the overall appearance and configuration of the set-top box 81 may be more akin to a consumer electronic device (e.g., VCR, DVD player) than a personal computer.

Figure 2B is an opening screen main menu user interface 94 which may appear on the television screen to permit simple non-Window presentation of user mode selection options. In particular, main menu 99 shows button or actuation fields for selection of operational modes: TV 100, DVD 101, world wide web (WWW) 102, games 103, communication 104, PC operation 105, and multimedia or audiovisual modes 106. By positioning the cursor over the particular desired button and making a mouse click or double-click, or by actuating the desired button with another input device such as a remote control, a desired multimedia mode may be selected.

Figure 3 is a digital video audio control display for a user interface. In particular, the display shows a window including audio mixer control fields 109, DVD control fields 110, a DVD/CD

hardware in the video out chip and only if a user is connected to a TV. If the user is not connected to a TV, the UI, it would not do this. Once the application is stopped, the user interface automatically switches back to the standard VGA mode to enable the UI to be displayed again.

Additionally, the UI is used to switch back and forth between applications which are either running or to launch new applications. In a Windows environment, a user may launch applications by selecting the application through the start menu. A user may also check to see which applications are running by hitting CTRL-ESC. Then the user may switch to one of the running applications by holding down the alt key and continuously hitting the tab key to cycle through the applications. However, all of these require separate multiple keys to perform or require a keyboard. This is possible to do with just a mouse.

In the UI of the present invention, if a user wants to watch a DVD movie and then a call comes in, the user may hit the menu key to go to the UI, then select the telephony application. If the application is already loaded and running in the background, the UI knows this and becomes a context manager to switch applications. If the application is not loaded, it launches the application in time to answer the call. Then the user may then use the Menu key



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